A synthetic plastic bearing, more particularly for th trunni n pins of universal orlike joints

Patent Number: GB792980
Publication date: 1958-04-09
Inventor(s):
Applicant(s): GELENKWELLENBAU GMBH
Requested Patent: ☐ GB792980
Application Number: GB19560034278 19561109
Priority Number(s): DEX346735 19560818
IPC Classification:
EC Classification: F16C21/00C, F16C33/20, F16D3/38B2
Equivalents: ☐ BE552618, ☐ CH346735, DE1048747, ☐ FR1160583, ☐ LU34757

Abstract

Description

PATENT SPECIFICATION

4, a, Date of Application and filing Complete Specification: Nov 9, 1956

Application made in Germany on Aug 18, 1956.

Complete Specification Published: April 9, 1958.

792,980 No 34278156 ' Index at acceptance:-Classes 12 (1), A(6 D:6 E 2:7 81); 65 (2), F 3 DX; and 80 (2), U 5 Al.

International Classification:-FO 6 c, d.

COMPLETE SPECIFICATION

A Synthetic Plastic Bearing, more particularly for of Universal or like Joints We, GELENKWELLENBAU G m b H, a German Company, of Westendhof 7, Essen, Germany, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:-

This invention relates to a synthetic plastic bearing more particularly a trunnion bearing lo in universal joints Such bearings are known but suffer from the disadvantage that the end face of the trunnion is in direct contact with the axial face of the bearing where the difference in the speed of different parts of the end face of the trunnion may easily cause damage to the lining of the bearing.

To avoid this defect the present invention proposes to provide a slipper disc inside the bearing at the end face of the trunnion The provision of such a disc will then prevent the end face of the trunnion from coming into direct contact with the lining at the base of the bearing and thereby protect it from damage.

The slipper disc may be steel, bronze, brass, or a plastic material with good anti-friction properties, and it may be a simple circular disc or be shaped to provide elasticity A steel disc, for instance, may have an upswept edge which bears against the end face of the trunnion Moreover, a combination of an elastic and an inelastic slipper disc may be inserted into the bearing.

Various illustrative forms of construction of the invention are shown in the drawings, in which:Figs 1 to 3 show sections of three different bearings constructed according to the invention.

The trunnion pin 1 of a universal joint of the kind used, for example, in the propeller shafts of motor vehicles or the like works in the synthetic plastic lining 2 of a bearing in the joint which is not specially shown At its base the liner 2 is axially closed by the the Trunnion Pins liner wall 3.

To prevent the end face la of the trunnion from coming into contact with the axial wall 3, a slipper disc 4, such as a steel disc, is inserted between the two parts Embossed 50 impressions or the like may be provided in the disc to stop the latter from turning The plane of relative motion is therefore the interface la between the end of the trunnion and the disc 4 There is no direct contact between 55 the end face of the trunnion and the axial wall 3 of the lining.

As shown in Fig 2 a simple flat slipper disc 4 may be replaced by an elastic steel disc or the like, similarly interposed between the 60 end of the trunnion 1 and the axial face 3 of the lining The steel disc 5 may have an upswept edge 5 a which bears against the end of the trunnion 1 A central hole may be drilled through the trunnion for the purpose 65 of admitting a lubricant to the interface la between the end of the trunnion and the steel disc 5.

Fig 3 illustrates the possibility of inserting, between the end of the trunnion 1 and the 70 axial face 3 of the shell 2, two discs 4 and 5, the frictional interface being located between the end face of the trunnion and the inelastic disc 4 whereas disc 5 provides elasticity.

As shown in Figs 2 and 3 the synthetic 75 plastic lining 2 of the bearing may be enclosed in a cup 6 for reinforcing the same.

Claims

What we claim is:-

1 A synthetic plastic bearing more particularly for the trunnion pins of universal joints, 80 characterised in that a slipper disc made for instance of steel is inserted into the bearing under the end face of the trunnion.

2 A bearing as claimed in Claim 1, characterised in that the slipper disc is shaped 85 to provide an elastic insertion.

3 A bearing as claimed in Claim 2, characterised in that the elastic slipper disc has an upswept edge which bears against the end face of the trunnion 90 6.

792,980 4 A bearing as claimed in Claims 1 to 3, characterised in that two discs, preferably one inelastic and one elastic disc, are inseited into the bearing.

A synthetic plastic bearing substantially 5 as herein described with reference to and as illustrated by the accompanying drawings.

MARKS & CLERK.

Printed for Her Majesty's Stationery Office bv Wickes & Andrews, Ltd, E C 4 684/2 -1958.

Published at the Patent Office, 25, Southampton Buildings, London, W C 2, from which copies may be obtained.

792980 COMPLETE SPECIFICATION
1 SHEET This drawing is a reproduction of the Original on a reduced scale

Fig.1

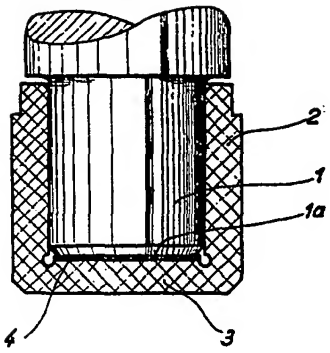

Fig.2

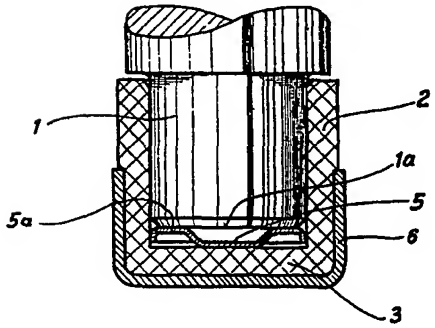

Fig.3